Gy (2.2 Gy/day) to the clinical target volume for tumor and metastatic nodal station, 54 Gy (1.8 Gy/day) to the clinical negative neck region concomitantly in 30 fractions. Concurrent chemotherapy was given to 32 pts (cisplatin 75-100 mg/m²/21 days for 25 pts, cisplatin 30-40 mg/m²/week for 5 pts and Cetuximab for 2). Possible correlation between Overall Cancer specific (OS) and GTV-PET Volumes (GTV-T+N, GTV-T, GTV-N) was also considered.

Results: The median follow-up was 39.2 months (range: 3-125); 27%, 62% and 11% pts has respectively never smoked, a smoking history of more than 10 packs/year and not assessed. 36 pts completed the treatment as scheduled. Temporary treatment interruption due to acute toxicity, mainly mucosae, was observed in 5 patients. No grade 4 acute mucosae and skin toxicity was reported. Seventeen pts (46%) experienced grade 3 toxicity, mostly dermatitis and mucositis. Late grade 3 and 2 xerostomia was seen respectively in 3% and 32% pts. No grade 4 late toxicity was observed. The 3-year OS, Local disease-free Tumor (LTC), Local disease-free Nodal (LNC) and distant metastasis-free (DMFS) survivals were 87%, 83%, 89% and 92% respectively. Multivariate Cox regression analyses revealed that GTV-T+N and GTV-T are predictors for OS with a best-cut-off value equal to 30.9 cc (p=0.005) and 22.4 cc (p=0.038).

Conclusion: The slightly accelerated dose escalation in oropharyngeal cancers to 18FDG-PET positive tumour sub-volumes is likely to be safe even with concurrent chemotherapy. Very interesting 3-year OS and loco-regional disease control rate are obtained. The results of the present study suggest that GTV-PET has a predictive value for the SIB-HT outcome. These findings may constitute the basis for more personalized treatments.

EP-1080

Definitive or adjuvant IMRT for locally advanced sinonasal tumors: outcome and prognostic factors

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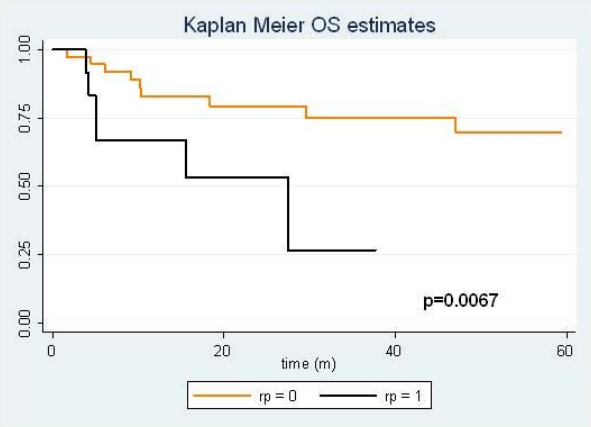
Purpose or Objective: There are limited and heterogeneous data on prognostic factors of locally advanced epithelial non glandular sinonasal cancer (ESNC) treated with multimodal treatment strategy. Prognosis of ESNC remains poor, with an overall 5-year survival rate of 30–50%. We analyzed a retrospective series of consecutive patients (pts) treated with IMRT at our institution, with a specific focus on the prognostic implications of clinical and treatment-related factors.

Material and Methods: Since 2007, 49 pts with ESNC staged III and IVA-IVB were treated at our Institution. Histology was squamous cell carcinoma (SCC) in 22 pts (44.9%), undifferentiated carcinoma (SNUC) in 20 pts (40.8%) and neuroendocrine carcinoma (SNEC) in 7 pts (14.3%). Prevalent primary site was ethmoid sinus (24 pts, 49%). Thirteen pts (26.5%) had N stage≥2b and 12 (24.5%) had positive retropharyngeal nodes (RPNs). Orbital apex invasion (OAI), nasopharyngeal involvement, gross nerves involvement (GNI) and positive surgical margins (R1) were found in 24 (49%), 12 (24.5%), 10 (20.4%) and 5 (10.2%) pts respectively. Thirty (61.2%) and 19 (38.8%) pts received definitive and postoperative IMRT, respectively. Thirtyfive pts (71.5%) received induction chemotherapy before surgery or RT and/or concomitant CHT. Thirtyeight pts (77.5%) received concomitant CHT. IMRT was given with standard fractionation at a total dose of 65-72 Gy in definitive cases and 54-66 Gy in adjuvant cases, according to histological findings. Gross tumor volume (GTV) was defined in all radical pts, and dose-volume histograms to all targets were analyzed in all pts.

Results: Median follow up was 22.4 months (range 6-85). Three-year overall survival (OS), disease free survival (DFS) and locoregional control (LRC) were respectively 66.5%, 55.4% and 66.3% for the entire cohort. OS and DFS were statistically better in pts with SCC or SNUC compared to pts with SNEC, in pts with ethmoid primary compared to other sites, in pts with N0 compared to pts with N stage ≥ 2b, in pts with RPNs compared to pts without RPNs (see Fig. 1), in pts with OAI compared to pts without OAI and in pts with GNI compared to pts without GNI. LRC was better even though statistically not different in pts without R1 compared to pts with R1. A multivariate analysis showed that ethmoid as primary origin site was a positive independent prognostic factor on OS, whereas RPNs positivity and OAI were negative independent prognostic factors for OS. For pts receiving definitive IMRT, pts with GTV <79.7cc had better OS, DFS and LRC compared to pts ≥79.7 cc, even if the difference was not statistically significant. Dosimetric factors were not found to have any prognostic role.



Conclusion: In a monoinstitutional series of locally advanced ESNC we obtained a 66.5% 3-yr OS and a 55.4% 3-yr DFS. We were able to identify RPNs involvement, ethmoid primary site and OAI as independent prognostic factors.

EP-1081

Advanced head and neck ca - chemoradiotherapy with conventional fraction and accelerated fraction

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Purpose or Objective: To compare early tumor response and compliance of locally advanced head and neck cancer patients receiving concurrent chemo-radiation, weekly Cisplatin with conventional fractionation versus weekly Cisplatin with accelerated fractionation and to assess toxicity profile

Material and Methods: Patients with histologically confirmed primary head and neck squamous cell carcinoma, stage III and IV (Oral cavity, oropharynx, hypopharynx and larynx) attending the department of Radiotherapy, Father Muller Medical College Hospital, Mangalore Between November 2013 to April 2015.
Total of 64 patients were recruited and randomized into conventional and accelerated arm each having 32 patients.